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June 30, 2011

Mr. Kevin Snyder
Waste Programs Division
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
1110 West Washington Street
MC4415B-1
Phoenix, AZ 85007

Re: RID COMMENTS ON ADEQ'S PROPOSED REMEDIAL
OBJECTIVES REPORT, WEST VAN BUREN AREA WQARF
REGISTRY SITE

Dear Mr. Snyder,

On behalf of Roosevelt Irrigation District ("RID") and its Board of Directors, I am submitting the following general comments regarding the *West Van Buren WQARF Registry Site Proposed Remedial Objectives Report* prepared by the Arizona Department of Environmental Quality ("ADEQ"), dated May 16, 2011 ("Proposed RO Report"). Also attached is a summary of RID's general comments as well as additional RID specific comments to the Proposed RO Report.

RID is pleased that ADEQ is proposing remedial objectives to protect and provide for water uses that have been impacted or are threatened by the groundwater contamination existing within the West Van Buren Area ("WVBA") Water Quality Assurance Revolving Fund ("WQARF") Site as required by Arizona law. RID further appreciates the fact that ADEQ has evaluated the water uses of all well owners in the area in order to select appropriate remedial objectives as required in A.A.C. R18-16-406.D.

It is abundantly clear from the Proposed RO Report that RID is the principal water provider impacted and threatened by the WVBA WQARF Site contamination. Whereas, the City of Phoenix (COP), City of Tolleson, and Salt River Project (SRP) have a number of operating wells peripheral to the contaminated plume and outside the WVBA WQARF Site boundary, RID has 21 operating wells known to be impacted by hazardous substances and an additional 11 operating wells deemed threatened, as a matter of law, by the groundwater contamination. See A.A.C. R18-16-405.I. Collectively, these wells can produce over 100 million gallons of water per day. The significant impact of the contamination on RID's wells in the WVBA WQARF Site is unparalleled in the State

and dwarfs the impact occurring at other Superfund sites, including Federal mega-sites such as the Indian Bend Wash Superfund Site.

For this reason, ADEQ must fully comply with its responsibilities under the law to protect and restore this critical water supply for RID's and its customers' current and future end uses.

While the current use of RID wells and water conveyed in RID canals is primarily for agricultural irrigation, RID's wells in the WVBA WQARF Site are a vital future drinking water supply. This is due in part to the significantly lower concentration of total dissolved solids in the WVBA groundwater compared to the groundwater in the Goodyear or Buckeye area. As such, RID's WVBA WQARF Site wells represent a vastly more desirable resource for municipal supply that will reduce the costs and environmental impacts otherwise necessary to treat the brackish water resources underlying these municipalities. For this reason, RID has repeatedly informed ADEQ that the reasonably foreseeable end use of the water supply in RID's WVBA WQARF Site wells will continue to transition to a drinking water use and must be protected, restored, or replaced, as a matter of Arizona law, to ensure RID can provide water for its reasonable foreseeable end uses and its maximum beneficial use. *See* A.R.S. 49-282.06.A.2. and 49-282.06.B.4.b.

Unfortunately, the Proposed RO Report, as drafted, is contrary to Arizona law as it pertains to RID's water supply and ADEQ's statutory obligations to protect, restore or replace the contaminated groundwater in the WVBA WQARF Site. ADEQ must revise the Proposed RO Report to ensure compliance with ADEQ's statutory and regulatory obligations in determining the remedial objectives that are applicable to the groundwater, RID and other groundwater users in the WVBA WQARF Site. Specifically, as drafted in the Proposed RO Report, ADEQ's proposed remedial objectives directly violate the statutory obligation in A.R.S. 49-282.06.B.4.b. that mandates:

the selected remedial action shall address, at a minimum, any well that at the time of selection of the remedial action ... would now or in the reasonably foreseeable future produce water that would not be fit for its current or reasonably foreseeable end uses without treatment due to the release of hazardous substances.

First, by limiting the proposed remedial objectives for "private groundwater use" to only address "if the current use is impaired or lost due to contamination," ADEQ's proposed remedial objectives directly conflict with this statutory requirement to address more than the current end use. Arizona law expressly requires any remedial action (and therefore the remedial objectives for that remedial action) to address all "reasonably foreseeable end uses."

The scope of the proposed remedial objectives for the WVBA WQARF Site is clearly defined under Arizona law:

The Department shall prepare a report of the proposed remedial objectives for the site that shall list the current and reasonably foreseeable uses of land and the current and reasonable foreseeable beneficial uses of waters of the state.¹ A.A.C. R18-16-406.I.4. (emphasis added)

Not only is the Proposed RO Report required to “list . . . the current and reasonably foreseeable beneficial uses of waters of the state,” but Arizona law requires that:

“The [proposed remedial objectives] report shall state the remedial objective for each [current and reasonably foreseeable] listed use in the following terms:

- a. Protecting against the loss or impairment of each listed use that is threatened to be lost or impaired as a result of a release of a hazardous substance.
- b. Restoring, replacing or otherwise providing for each listed use to the extent that it has been or will be lost or impaired as a result of a release of a hazardous substance. A.A.C. R18-16-406.I.4.a and b. (emphasis added)

In short, the Proposed RO Report must be revised to clearly state remedial objectives that will “protect, restore, replace or otherwise provide for” all “reasonably foreseeable beneficial uses” by RID (including future municipal drinking water end uses) of the water supply in RID’s WBVA WQARF Site wells. The Proposed RO Report’s continued references to “protecting, restoring, replacing or otherwise providing” only for the “current” or “existing” water uses violates Arizona law.

The Proposed RO Report’s continued references only to “current” or “existing” water uses also violates other applicable provisions of Arizona law. Arizona law further mandates that “[t]he director shall adopt, by rule, water quality standards for all navigable waters and for all waters in aquifers to preserve and protect the quality of those waters for all present and reasonably foreseeable future uses. A.R.S. 49-221.A. (emphasis added) Consequently, “[i]n setting standards [including remedial objectives] . . . the director shall consider . . . [t]he uses which have been made, are being made or with reasonable probability may be made of these waters.” *See* A.R.S. 49-221.C. These state law requirements

¹ As stated in the Proposed RO Report, reasonably foreseeable uses of waters are those likely to occur within 100 years unless a longer period is shown to be reasonable based on site-specific circumstances. A.A.C. R18-16-406.D.

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also are consistent with the statutory mandates in A.R.S. 49-224.B. and A.R.S. 49-282.06.A.2 that “all aquifers in this state . . . shall be classified [and therefore protected] for drinking water protected use” and all “remedial actions [and therefore the remedial objectives for all remedial actions] . . . shall . . . cleanup . . . hazardous substances in order to allow the maximum beneficial use of the waters of the state.” All of these laws require the remedial objectives for the WVBA WQARF Site to include protecting, restoring, replacing or otherwise providing for a drinking water quality water supply from the groundwater and RID wells in the WVBA WQARF Site.

Arizona law also requires that “remedial objectives shall be generally consistent with the water management plans of all water providers whose water supplies are or may be impaired by the contamination.” A.A.C. R18-16-406.I.3. RID has repeatedly informed ADEQ that a municipal drinking water supply is a reasonably foreseeable end use of the water supply in RID’s WVBA WQARF Site wells.² In addition, pursuant to the RID Board of Directors’ *Statement of Policy Regarding Superfund Sites*, dated March 17, 2010, “any discharges of remediated groundwater into the RID water distribution system must be of a quality that meets the United States Environmental Protection Agency Maximum Contaminant Levels and the Arizona Aquifer Water Quality Standards for the associated contaminants of concern . . . and shall provide for the maximum beneficial use of the water supply.” Consistent with applicable state law, ADEQ’s Proposed RO Report must be revised to be consistent with RID’s water management plan, as referenced in its prior statements to ADEQ and in its Superfund Policy Statement (*i.e.*, to protect, restore, replace or otherwise provide for RID’s foreseeable municipal drinking water supply end use).

Additionally, given that the statutory requirement in A.R.S. 49-282.06.B.4.b., discussed above, is the “minimum” for any selected remedial action, ADEQ’s “projected duration of the action needed to protect or provide for the use” set forth in the proposed remedial objectives fails to comply with this statutory requirement. In fact, as drafted,³ the stated duration of ADEQ’s proposed remedial objectives fails to address the statutory requirements that all aquifers are “classified for drinking water protected use” under A.R.S. 49-224.B., the selected remedial action shall “address . . . reasonably foreseeable end uses” of any impacted well water under A.R.S. 49-282.06.B.4.b., and all remedial

² *Roosevelt Irrigation District Comments Regarding the “Draft Remedial Investigation Report, West Van Buren Area WQARF Registry Sites”, dated December 23, 2008; Proposed Remedial Objectives for West Van Buren Water Quality Assurance Fund Revolving Site, dated December 30, 2009; Revised Land and Water Use Study Questionnaire, West Van Buren WQARF Registry Site, dated January 12, 2010*

³ In the Proposed RO Report, the projected duration for most of the remedial objectives state that “this action will be needed as long as the need for water exists, the resource remains available and the contamination associated with the WVBA WQARF site prohibits or limits groundwater use.”

actions shall “cleanup” hazardous substances “to allow the maximum beneficial use of the waters of the state” under A.R.S. 49-282.06.A.2. The “projected duration of the action needed to protect or provide for the use,” as required by A.A.C. R18-16-406.I.4.d., should be as long as necessary to protect and restore the aquifer to its “drinking water protected use” under A.R.S. 49-224, to provide for the “reasonably foreseeable [drinking water] end use” of RID’s wells under A.R.S. 49-282.06-B.4.b., and to cleanup the hazardous substances “to allow the maximum beneficial [drinking water] use of the waters of the state” under A.R.S. 49-282.06.A.2. For all these reasons, ADEQ must revise the Proposed RO Report consistent with these comments to avoid any ambiguity as to the duration of the remedial objectives and to ensure compliance with ADEQ’s statutory obligations.

The proposed remedial objectives also fail to state, as required by R18-16-406.I.4.c, the “time-frames when action is needed to protect against or provide for the impairment or loss of the use.” Given that RID and the public have already waited 20 years for the WVBA Draft Remedial Investigation Report, ADEQ should provide the public with the required timeframe as to when action is needed to protect, restore or replace the groundwater that has impacted and threatens to impact RID’s wells in the WVBA WQARF Site. Consistent with ADEQ’s approval of RID’s Early Response Action (“ERA”) Work Plan on June 24, 2010, ADEQ should note in the final remedial objectives for the WVBA WQARF Site that immediate action is needed to address the groundwater contamination that is impacting and threatening a valuable water supply and all 32 RID wells within the WVBA WQARF Site. Early Response Actions are authorized under Arizona law in order to pursue “early” responses that are “necessary” to meet any one of the criteria referenced in A.A.C. R18-16-405.A. ADEQ’s approval of RID’s ERA confirms the necessity of the ERA to be implemented quickly. Immediate action also is necessary as ADEQ has acknowledged that the groundwater contamination “has impacted multiple RID water supply wells which may present an imminent and substantial endangerment to public health, welfare or the environment within the West Van Buren WQARF Site.” *See Agreement to Conduct Work*, dated October 8, 2009, between ADEQ and RID.

The Proposed RO Report, as drafted, also is unclear and ambiguous. It is unclear why ADEQ decided to depart from its format in the Remedial Objectives Report for the West Central Phoenix North Plume WQARF Site that provided a single set of remedial objectives for all groundwater uses. Instead of a single set of remedial objectives, the Proposed RO Report identifies three separate and different sets of remedial objectives for municipal, agricultural and private groundwater use. More puzzling is the ambiguity as to which set of groundwater use remedial objectives will apply to RID’s water supply in its WVBA WQARF Site wells. Given the current agricultural use and foreseeable municipal use of the water supply from RID’s WVBA WQARF Site wells, the Proposed RO Report appropriately discusses RID’s water supply in those respective sections. However, although RID is not discussed in Section 3.3 and ADEQ clearly states that “private groundwater use within the WVBA is minimal”, ADEQ responds to one of

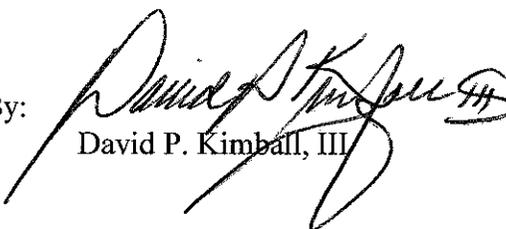
RID's comments in Appendix C with the proposed remedial objectives identified for "private groundwater use." Further confusing is ADEQ's decision to apply the proposed remedial objectives for "private groundwater use" as the proposed remedial objectives in Section 4.1 "for current and future RID canal water use in the WVBA" when ADEQ clearly states that "no water in the RID canal is used within the WVBA." RID believes that given the ambiguities, ADEQ should revise the proposed remedial objectives to clarify what remedial objectives will be applicable to protect, restore, or replace RID's contaminated and threatened water supply consistent with ADEQ's statutory and regulatory obligations referenced above.

RID also is concerned that the Proposed RO Report, as drafted, does not include all of the information that was supplied to ADEQ. For example, ADEQ should include in Section 3.1 the Land and Water Use Study Questionnaire responses of SRP and COP to support RID's position, which is already noted in Section 3.1, that a drinking water use is a reasonably foreseeable end use for the groundwater in the WVBA WQARF Site. Specifically, SRP noted in its response that "currently, the wells provide water for irrigation but SRP anticipates that the wells will transition to [a] drinking water supply as the area develops." Specifically, COP noted in its response that "we intend not to utilize wells ... at this current time. However, as noted above there is the possibility that we may need to install new wells to service future [potable] water demand [due to population growth]."

RID appreciates ADEQ's consideration of the comments provided in this letter and the attached summary and is available to discuss these issues in detail or answer any questions ADEQ may have.

Very truly yours,

GALLAGHER & KENNEDY, P.A.

By: 
David P. Kimball, III

Enclosure

SUMMARY OF GENERAL AND SPECIFIC RID COMMENTS TO ADEQ'S PROPOSED REMEDIAL OBJECTIVES FOR WVBA WQARF SITE

General Comments:

1. There are limited or no citations to the statutory and regulatory obligations that apply and bind ADEQ's remedial objectives.
2. Likewise, there are little or no references to other ARARs that apply and should influence ADEQ's remedial objectives. (*See* statutory and regulatory references in narrative comments and several of the specific comments below)
3. Given the statutory and regulatory obligations of ADEQ and ADEQ's prior remedial objectives adopted for the WCP WQARF Site, it is unclear why Section 3 is not consolidated into a single set of remedial objectives for all groundwater uses.
4. Draft does not appear to contain all relevant comments provided by stakeholders in regards to the land and water use surveys.
5. There is a lack of consistency between the proposed remedial objectives in the first few sections and how ADEQ uses the proposed remedial objectives to respond to specific comments in Appendix C.

Specific comments:

1. Page 2-1: The document fails to note the contribution of contamination from the north from the West Central Phoenix, West Osborn Complex WQARF Site, which was included in ADEQ's Draft WVBA RI report.
2. Page 2-1: Consistent with ADEQ's and Maricopa County's prohibition of transferring contaminants from one media to another (water-air), which is being implemented as an ARAR at other Superfund Sites in Arizona, ADEQ should add another remedial objective such as: Protect against the transfer of hazardous substances due to the volatilization of WVBA WQARF Site -COCs from groundwater to air.
3. Page 3-1: Unlike COP's land and water use survey where COP states that municipal use is a "reasonably foreseeable use" for the groundwater within WVBA, the draft language is unclear and only implies it.
4. Page 3-1: SRP is not mentioned at all in this section even though SRP, like COP, mentioned in its land and water use survey that municipal use is a "reasonably foreseeable use" for the groundwater within the WVBA.
5. Page 3-4: The "private groundwater use" remedial objectives (protect or provide only if current use is impaired or lost) disregard "reasonably foreseeable uses" as required by ADEQ's statutory and regulatory obligations. *See* A.R.S. 49-282.06.B.4.b., A.R.S. 49-221.A and C, and A.A.C. R18-16-406.I.4.
6. Page 3-2, 3-3: The proposed duration of ADEQ's remedial objectives (needed for as long as the need for water exists and contamination prohibits or limits groundwater use) terminates before ADEQ meets its statutory obligations (all aquifers are to be protected for "drinking water protected use", the selected remedy shall address "reasonably foreseeable end uses" of impacted well water and remedial actions shall "cleanup" hazardous substances "to allow the maximum beneficial use of the waters of the state"). *See* A.R.S. 49-224, 49-282.06.B.4.b., and 49-282.06.A.2.

7. ADEQ's proposed remedial objectives fail to address when the proposed actions are necessary (*i.e.*, immediate action) to be implemented as required by ADEQ's regulatory obligations and WVBA WQARF Site determinations. *See* ADEQ's June 24, 2010 approval of RID's ERA and its October 8, 2009, Agreement to Conduct Work with RID.
8. Given that ADEQ has specific statutory obligations, which do not depend on the type of groundwater use, there should be a single set of remedial objectives for all groundwater uses, such as:
 - a. To protect any well that supplies water for municipal, domestic, industrial, irrigation or agricultural uses or is part of a public water system that in the reasonably foreseeable future would produce water that would not be fit for its current or reasonably foreseeable end uses without treatment without reducing the supply of water available to the owner of the well. A.R.S. 49-282.06.B.4.b., and A.R.S. 49-221-A and C.
 - b. To restore, replace or otherwise provide for any well that supplies water for municipal, domestic, industrial, irrigation or agricultural uses or is part of a public water system that would now produce water that would not be fit for its current or reasonably foreseeable end uses without treatment without reducing the supply of water available to the owner of the well. A.R.S. 49-282.06.B.4.b., and A.R.S. 49-221 A and C.
 - c. Action is needed immediately to protect or provide for the current and reasonably foreseeable water uses and to cleanup hazardous substances to allow the maximum beneficial use of the waters of the state. A.R.S. 49-282.06.A.2 and B.4.b., and A.A.C. R18-16-405.A. (rationale for an Early Response Action).
 - d. Actions should continue until the aquifer meets its classification for "drinking water protected use," the selected remedy action addresses all "reasonable end uses" of any impacted well water and hazardous substances are "cleaned up" to "allow the maximum beneficial use of the waters of the state". A.R.S. 49-224.B., 49-282.06.B.4.b., and 49-282.06.A.2.
9. Page 4-1: ADEQ's decision to apply the proposed remedial objectives for "private groundwater use" as the proposed remedial objectives in Section 4.1 "for current and future RID canal water use in the WVBA" is confusing given that ADEQ clearly states that "no water in the RID canal is used within the WVBA."
10. Page C-1: Proves the need to revise remedial objectives without separating specific water uses. The comment is about groundwater uses in general, but ADEQ's response speaks only about "municipal groundwater use."
11. Page C-2: Response to Comment 2 should include the new remedial objective proposed about prohibition on transfer of contaminations from one media to another.
12. Page C-3: Response to Comment 6 fails to address WCP WQARF Site which was identified in ADEQ's WVBA Draft RI Report as a contributing source of contamination.
13. Page C-3: Response to Comment 7 should state "Data collected to date do not indicate a current *substantial* risk to human health or the environment ..." or similar qualifying language based on video footage, recent air quality data and ADEQ's finding that the groundwater contamination "has impacted multiple RID water supply wells which may present an imminent and substantial endangerment to public health, welfare or the environment within the West Van Buren WQARF Site." *See Agreement to Conduct Work*, dated October 8, 2009, between ADEQ and RID.

14. Page C-3: Response to Comment 10 should include the new remedial objective proposed about prohibition on transfer of contaminants from one media to another.
15. Page C-4: Response to Comment 12, an RID comment, utilizes the “private groundwater use” remedial objectives even though RID’s wells are currently used for irrigation and will be used for municipal use in the reasonably foreseeable future.
16. Page C-4: Response to Comment 15 which contains a single set of remedial objectives for all groundwater uses is not consistent with the differing proposed remedial objectives provided by ADEQ in the Proposed RO Report for municipal, irrigation and private groundwater uses.
17. Page C-6: Response to Comment 26 should also include a brief statement that ADEQ has approved RID’s ERA.
18. Page C-7: Response to Comment 30 should include the new remedial objective proposed about prohibition on transfer of contaminations from one media to another.